EA Form R 1/2007

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. **Applicant/Contact name and address:**

   INDIAN SPRINGS RANCH WATER & SEWER LLC
   PO BOX 226
   EUREKA MT 59917-0226

2. **Type of action:** Groundwater Application for Beneficial Water Use Permit 76D 30155903

3. **Water source name:** Groundwater

4. **Location affected by project:**

   Points of diversion (PODs), all in Lincoln County:

   - Well Mary: Government Lot 3, SENENW Section 2, Township 36N, Range 27W.
   - Well Aaron: Government Lot 3, SENENW Section 2, Township 36N, Range 27W.

   Places of use, all in Lincoln County:

   - Government Lot 3, NENW Section 2, Township 36N, Range 27W.
   - N2SENW Section 2, Township 36N, Range 27W.
   - SESW Section 25, Township 37N, Range 27W.
   - SENE Section 36, Township 37N, Range 27W.
   - E2W2 Section 36, Township 37N, Range 27W.
   - W2E2 Section 36, Township 37N, Range 27W.

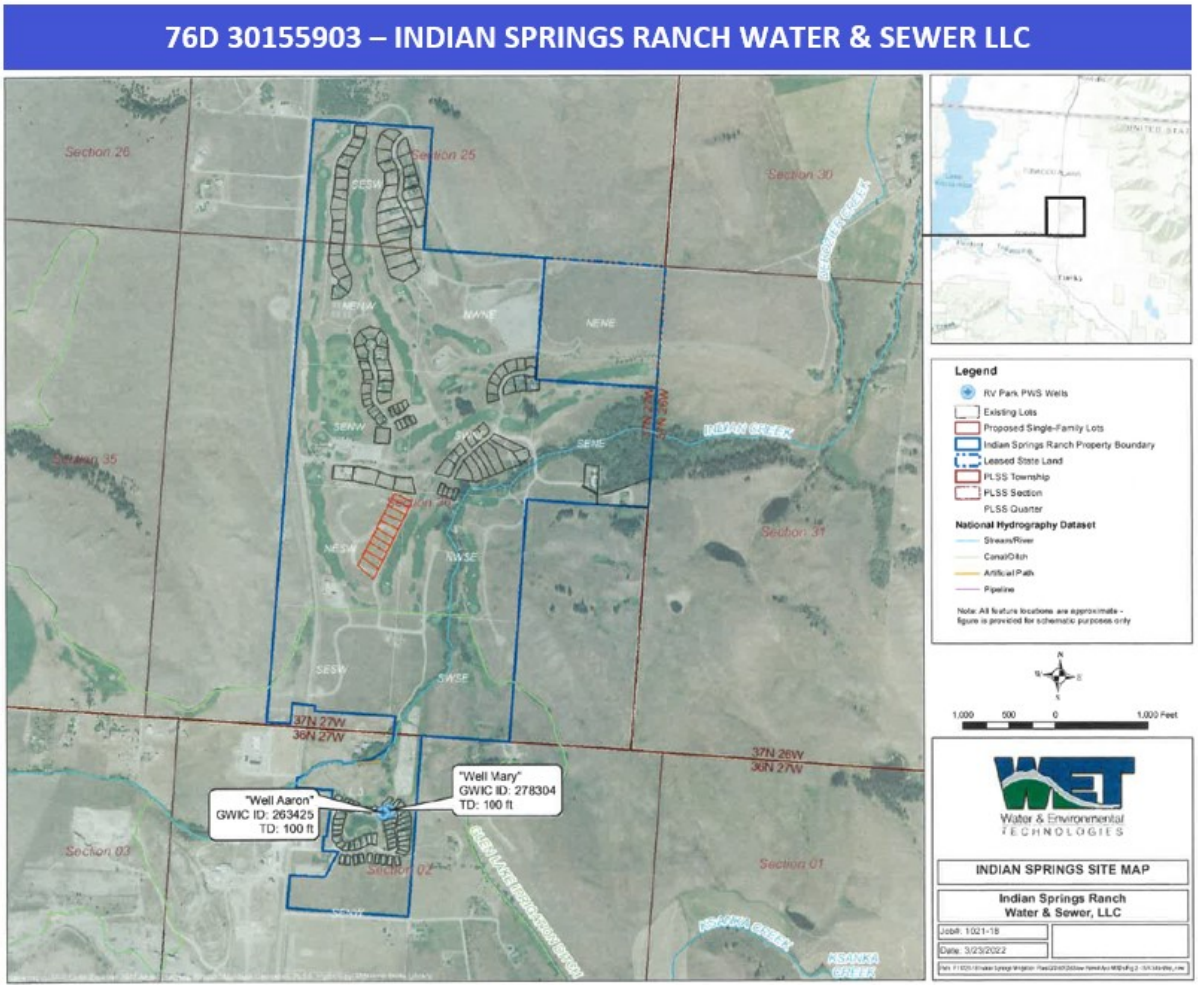

Figure 1. Map of the proposed places of use (within blue-line property boundary) and points of diversion.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to divert groundwater at 215.0 GPM up to 63.78 AF annually by means of two production wells, Well Mary (GWIC ID: 278304) and Well Aaron (GWIC ID: 263425), from January 1 – December 31 for multiple domestic and commercial uses. The Applicant proposes to use a volume of 46.04 AF of water to supply the multiple domestic use for 85 single-family residence lots and 52 mobile home lots (137 lots total), and 17.74 AF of water to supply the commercial use associated with 120 RV lots and 48 rental cabins.

This Application seeks to permit water to serve the multiple domestic and commercial water needs of the planned expansion of the Indian Springs Ranch (ISR) development at full build-out. ISR is a multi-phase residential/commercial development at Indian Springs Ranch golf course. There are currently 100 residential lots, 95 RV lots, and some minor commercial uses at ISR. Future phases of development will include 85 single-family residential lots, 52 mobile home lots, 120 RV lots, and four cabin lots (48 rental units). ISR encompasses approximately 475 acres including the golf course, an existing RV Park, and land leased from the State of Montana. None of the existing or proposed uses associated with the public water supply (PWS) system have a place of use within the leased State of Montana land.

Indian Springs Ranch's existing water uses are served under Provisional Permit 76D 30047716 (issued 29 July 2010) which authorizes a flow rate of 43.0 GPM and provides for 28.0 AF/year for multiple domestic use by 100 residential lots and 11.5 AF/year for 95 RV lots and other various commercial uses (39.5 AF/year total). These uses are served through a common water distribution system by two PWS wells (GWIC IDs: 264845 and 264846) and a 35,000-gallon storage tank. The existing water system is a registered public water supply (PWSID MT0004611) regulated by the Montana Department of Environmental Quality (DEQ).

The project is in the Kootenai River Basin (76D) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:

- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory Wetlands Mapper
- Montana Natural Heritage Program: Endangered, Threatened Species, and Species of Special Concern
- Montana Department of Fish Wildlife & Parks (MTDFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MTDEQ): Clean Water Act Information Center
- U.S. Natural Resources Conservation Service (NRCS): Web Soil Survey

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **-** *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The Applicant will divert groundwater. The Applicant's wells are approximately 600 feet, 4,500 feet, 11,800 feet, 16,500 feet, and 20,400 feet from Indian Creek, Ksanka Creek, Tobacco River, Tetrault Lake, and the Kootenai River (Lake Koocanusa), respectively. The Tobacco River and Lake Koocanusa are interpreted to be the potentially affected surface water sources for this application. The Tobacco River and Lake Koocanusa are not on the MTDFWP list of chronically or periodically dewatered streams.

Determination: No significant impact.

Water quality **-** *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

According to the MTDEQ 2020 Clean Water Act Information Center Water Quality Information, the Tobacco River is listed as "fully supporting" for: primary contact recreation, agriculture, and drinking water. The aquatic life use is listed as "not fully supporting," with the probable causes being physical substrate habitat alterations and sedimentation/siltation. The Tobacco River's Use Class is "B-1," meaning the waters are classified as suitable for drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. The Water Quality Category is "4A," meaning all total maximum daily load (TMDL) plans needed to rectify all identified threats or impairments have been completed and approved. The surface water depletions anticipated from this proposed project will not affect water quality of the Tobacco River.

According to the MTDEQ 2020 Clean Water Act Information Center Water Quality Information, Lake Koocanusa is listed as "fully supporting" for: primary contact recreation, agriculture, and drinking water. The aquatic life use is listed as "not fully supporting," and "threatened," with the probable causes being Selenium and Flow Regime Modification. Lake Koocanusa's Use Class is "B-1," meaning the waters are classified as suitable for drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. The Water Quality Category is "5," meaning the waters have one or more beneficial use impaired or threatened, and a TMDL plan is required to address the factors causing the impairment or threat. The surface water depletions anticipated from this proposed project will not affect water quality of Lake Koocanusa.

Determination: No significant impact.

Groundwater **-** *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

The two proposed PWS wells, Wells Mary and Aaron, are both completed to 100-feet below ground surface (bgs) in a 40-foot-thick sand and gravel aquifer associated with glacial outwash deposits that have been incised by the Tobacco River to the south and Kootenai River (Lake Koocanusa) to the west.

A Department analysis of Applicant supplied data from a 28-hour aquifer test on Well Mary (GWIC ID: 278304), and an 8-hour yield and drawdown test on Well Aaron (GWIC ID: 263425) concluded that there is a sufficient supply of groundwater in the source aquifer and the one of the hydraulically connected surface water sources (Lake Koocanusa) to satisfy the proposed appropriation. The depletions to the over-appropriated Tobacco River are proposed to be mitigated by a companion water right change application (76D 30155902). That application proposes to change some of the Applicant's existing stock water rights to mitigation water. The Department concluded that the proposed change is adequate to mitigate the potential for adverse effects to water users on the Tobacco River. The Department concluded that surface water quality and the physical/legal supply would not be adversely affected by the proposed groundwater appropriation.

Determination: No significant impact.

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The existing systems are Montana Public Water Supplies (PWSID: MT0004611 – ISR; PWSID MT0004844 – RV Park) registered with the Montana DEQ. As part of this project, the RV Park PWS and the ISR PWS systems will be combined to form a single PWS system. Final pumps and modifications to the existing pumping systems shall be approved by the Montana DEQ PWS Section, as is required for modifications to any public water supply system in Montana.

Water shall be pumped from Well Aaron (GWIC ID: 263425) and Well Mary (GWIC ID: 278304) through a 3-inch buried manifold into the six Well-X-Trol hydropneumatic pressure tanks in the RV Park pump house through 3-inch HDPE pipe and a 3-inch Hersey MVT flow meter. Each well supply line is metered separately before joining into a common 6-inch transmission line. From the RV Park pump house, water will be conveyed through a 6-inch transmission main line to the 35,000-gallon water storage tank.

Pressure transducers regulate the water level in the storage tank determining pump cycle demand. The two northern PWS wells (Wells 1 and 2) operate at a maximum combined flow rate of 43.0 GPM; the two southern RV Park PWS wells (Wells Mary and Aaron) will operate at a combined maximum flow rate of 215.0 GPM. The northern and RV Park wells will be operated on an alternating lead-lag schedule with each other, with a northern well in the lead position and an RV Park well operated in the lag position. If multiple wells are needed to maintain water level in the storage tank, one northern well will operate followed by one RV Park well.

Water will be pumped from the storage tank to the looped distribution system through a 10-inch HDPE pipe by a triplex booster pump system with three Grundfos CR-15 pumps, each with a Baldor 10-HP Smart Motor. The pumps are controlled by a Grundfos CU351 Pump Control Center Unit. A 4-inch Hersey MVT flow meter measures the total volume of water pumped from the storage tank to distribution through a 6-inch HDPE water main. An Extrol Model 200L hydropneumatic tank helps regulate pressure in the system and a 2-inch Singer 106 RPS Pressure Relief Valve discharges to the exterior of the pump house.

Water is conveyed to each residential and commercial lot from the distribution main through a curb stop and 1-inch service line. A separate system and connection conveys water used for irrigation (diverted from Indian Creek) to each lot under separate water rights as detailed in FOF 6. A 2-inch flush hydrant is connected to the water main located at the northernmost portion of the development to allow for system flushing and evacuation of air. To accommodate the water system expansion, new water distribution mains will be installed with connection lines to reach the proposed lots.

The approximate elevation of the pumping water level is 2,612 feet above mean sea level (AMSL) in Well Aaron and 2,610 feet AMSL in Well Mary. The approximate elevation of the water level when the water storage tank is full is 2,782 feet AMSL, resulting in 170 feet of head (2,782 feet - 2,612 feet= 170 feet) at Well Aaron and 172 feet of head (2,782 feet - 2,610 feet= 172 feet) at Well Mary. Estimated friction losses are 20.5 feet in the drop pipe and 27.1 feet in the transmission line from the RV Park pump house to the water storage tank. According to the pump curve, the proposed pumps will produce 215.0 GPM at a total dynamic head (TDH) of 218-220 feet.

Well Mary (GWIC ID: 278304) was evaluated with a 28-hour aquifer test at an average flow rate of 481.0 GPM with the maximum drawdown of 2.73 feet below the static water level (SWL) of 58.44 feet BTC. Well Aaron (GWIC ID: 263425) was evaluated with an 8-hour yield and drawdown test at an average flow rate of 391.8 GPM. The maximum observed drawdown was 1.1 feet below the SWL

of 56.8 feet BTC. The water system is designed to operate with each well (Mary and Aaron) producing up to 215.0 GPM. Only one well will operate at any given time under this Provisional Permit for a maximum diversion of 215.0 GPM.

Discharge from the system occurs as effluent water infiltrating back to shallow groundwater from the wastewater treatment system drainfields.

Based on the results of the 28-hour constant-rate aquifer test and the 8-hour yield and drawdown test, anticipated TDH conditions, and the pump performance and system specifications, the Department finds that the diversion and conveyance system is adequate to supply the requested annual volume of 63.78 AF at a flow rate 215.0 GPM.

This project diverts from groundwater. It will not create any channel impacts, barriers, dams, or riparian impacts to surface waters. Any surface water depletions are physically and legally available or will be fully mitigated. Existing wells in the source aquifer will still have sufficient water column from which to draw water.

Determination: No significant impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species **-** *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

The Montana Natural Heritage Program website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern" in the project area that could be impacted by the proposed project. Twenty-one animal and five plant species of concern (Tables 1 and 2, respectively) were identified within the project area. Of these species, the Grizzly Bear (*Ursus arctos*), the Canada Lynx (Lynx canadensis), Spalding's Catchfly/Spalding's Campion (*Silene spaldingii*), the Whitebark Pine (Pinus albicaulis), and the Bull Trout (*Salvelinus confluentus*) are listed as threatened by the USFWS. An adequate quantity of water will still exist in the potentially affected surface water sources to maintain existing populations of Bull Trout, should they exist there currently. This area is already highly developed, and it is not anticipated that any species of concern will be further impacted by the proposed project.

Table 1. Animal Species of Concern

Bobolink (*Dolichonyx oryzivorus*)	Long-billed Curlew (*Numenius americanus*)	Grizzly Bear (*Ursus arctos*)	Long-eared Myotis (*Myotis evotis*)
Bull Trout (*Salvelinus confluentus*)	Common Loon (*Gavia immer*)	Hoary Bat (*Lasiurus cinereus*)	Long-legged Myotis *(Myotis volans)*
Canada Lynx (*Lynx canadensis*)	Evening Grosbeak (*Coccothraustes vespertinus*)	Lewis's Woodpecker (*Melanerpes lewis*)	Pacific Wren (*Troglodytes pacificus*)
Cassin's Finch (*Haemorhous cassinii*)	Fisher (*Pekania pennanti*)	Little Brown Myotis (*Myotis lucifugus*)	Pileated Woodpecker (*Dryocopus pileatus*)
Yuma Myotis *(Myotis yumanensis)*	Veery (*Catharus fuscescens*)	Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*)	Torrent Sculpin (*Cottus rhotheus*)
Wolverine (*Gulo gulo*)			

Table 2. Plant Species of Concern			
Least Moonwort (Botrychium simplex)	Spalding's Catchfly/Spalding's Campion (Silene spaldingii)	Whitebark Pine (Pinus albicaulis)	Wood Lily (Lilium philadelphicum)
Many-headed Sedge (Carex sychnocephala)			

Determination: No significant impact.

Wetlands **-** *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Several freshwater ponds, freshwater emergent wetlands, and forested/shrub riparian areas exist within the project area. It is the responsibility of the landowners to follow applicable wetland regulations when developing their property. It is not anticipated that the proposed multiple domestic and commercial uses will impact these resources.

Determination: No significant impact.

Ponds **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: N/A, project does not involve ponds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE **-** *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

The proposed multiple domestic and commercial uses will not negatively impact the soil quality, stability, or moisture content. The soil types in the project area are:

- Niarada-Niarada, greater slopes-Roosville complex, 2 to 30 percent slopes. Moderately high to high capacity to transmit water.
- Arimo-Moiese complex, 0 to 15 percent slopes. Moderately high to high capacity to transmit water.
- Iphil-Truscreek-Downey complex, 0 to 10 percent slopes. Moderately high to high capacity to transmit water.
- Tetrault-Canusa-Jocko complex, 1 to 20 percent slopes. High capacity to transmit water.
- McCollum-Buist family, stony-Downey, bouldery complex, 0 to 10 percent slopes. Moderately high to high capacity to transmit water.
- Downey-Ream family complex, 0 to 10 percent slopes. Moderately high to high capacity to transmit water.
- Bohnly-Seelovers-Newbar family complex, 0 to 15 percent slopes. Moderately high to high capacity to transmit water.
- Pits, gravel.

Soils in this area are not likely susceptible to saline seep.

Determination: No significant impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

This area is already developed, and any existing native vegetation has likely already been disturbed. It is not anticipated that issuance of a water use permit will contribute to the establishment or spread of noxious weeds in the project area. Noxious weed prevention and control will be the responsibility of the landowners, who must follow local noxious weed regulations.

Determination: No significant impact.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

There will be no impact to air quality associated with issuance of the proposed permit for beneficial use of surface water.

Determination: No significant impact.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: N/A, project not located on State or Federal Lands.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water, and energy not already addressed.*

All impacts to land, water, and energy have been identified. No further impacts are anticipated.

Determination: No significant impact.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is consistent with planned land uses.

Determination: No significant impact.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter, or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No significant impact.

HUMAN HEALTH - *Assess whether the proposed project impacts human health.*

This proposed use will not adversely impact human health.

Determination: No significant impact.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights*.

Determination: No impact.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* None identified.

(*b)* *Local and state tax base and tax revenues?* None identified.

(c) *Existing land uses?* None identified.

(*d)* *Quantity and distribution of employment?* None identified.

(e) *Distribution and density of population and housing?* None identified.

(f) *Demands for government services?* None identified.

(g) *Industrial and commercial activity?* None identified.

(h) *Utilities?* None identified.

(i) *Transportation?* None identified.

(j) *Safety?* None identified.

(k) *Other appropriate social and economic circumstances?* None identified.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

3. *Describe any mitigation/stipulation measures:*

None.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

The only alternative to the proposed action would be the no action alternative. The no action alternative would not authorize the diversion of groundwater.

Part III. Conclusion

1. Preferred Alternative

Issue a water use permit if the Applicants prove the criteria in 85-2-311 MCA are met.

2. Comments and Responses

None.

3. Finding:

*Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No significant impacts related to the proposed project have been identified.

Name of person(s) responsible for preparation of EA:

Name: Travis Wilson
Title: Water Resource Specialist
Date: 04 April 2023